CONTENTS

Preface v
Seismic image of the Cantabrian Mountains in the western extension of the Pyrenees from integrated ESCIN reflection and refraction data
J.A. Pulgar, J. Gallart, G. Fernández-Viejo, A. Pérez-Estaún, J. Álvarez-Marrón and ESCIN Group 1
Crustal evolution of the Middle Urals based on seismic reflection and refraction data
C. Juhlin, J.H. Knapp, S. Kashubin and M. Bliznetsov 21
A traverse of the Ionian islands front with coincident normal incidence and wide-angle seismics
A. Hirn, M. Sachpazi, R. Siliqi, J. Mc Bride, F. Marnelis, L. Cernobori and the STREAMERS-PROFILES group 35
Gently north-dipping Median Tectonic Line (MTL) revealed by recent seismic reflection studies, southwest Japan
T. Ito, T. Ikawa, S. Yamakita and T. Maeda 51
LITHOPROBE reflection studies of Archean and Proterozoic crust in Canada
R.M. Clowes, A.J. Calvert, D.W. Eaton, Z. Hajnal, J. Hall and G.M. Ross 65
Seismic image of an early Proterozoic rift basin
B. Milkereit and J. Wu 89
Coincident vibroseis and dynamite surveys across the western flank of the Trans-Hudson Orogen
S. Bezdán and Z. Hajnal 101
Moho signature from wide-angle reflections: preliminary results of the 1993 Trans-Hudson Orogen refraction experiment
B. Németh, Z. Hajnal and S.B. Lucas 111
Results of seismic reflection profiling in the Turanian Platform
E.R. Sheikh-Zade 123
Deep seismic images and the tectonic framework of early rifting in the Otway Basin, Australian southern margin
D.M. Finlayson, D.W. Johnstone, A.J. Owen and K.D. Wake-Dyster 137
Seismic structure of the northern continental margin of Spain from ESCIN deep seismic profiles
J. Alvarez-Marrón, A. Pérez-Estaún, J.J. Dañobeitia, J.A. Pulgar, J.R. Martínez Catalán, A. Marcos, F. Bastida, P. Ayarza Arribas, J. Aller, A. Gallart, F. Gonzalez-Lodeiro, E. Banda, M.C. Comas and D. Córdoba 153
Crustal image of the Ionian basin and its Calabrian margins
L. Cernobori, A. Hirn, J.H. McBride, R. Nicolich, L. Petronio, M. Romanelli and STREAMERS/PROFILES Working Groups 175
Crustal-scale extension in the central Pannonian basin
Z. Hajnal, B. Reilkoff, K. Posgay, E. Hegedus, E. Takacs, I. Asudeh, St. Mueller, J. Ansorge and R. Delaco 191
Coincident normal-incidence and wide-angle reflections from the Moho: evidence for crustal seismic anisotropy
K.A. Jones, M.R. Warner, R.P.Ll. Morgan, J.V. Morgan, P.J. Barton and C.E. Price 205
Shear wave anisotropy of laminated lower crust at the Urach geothermal anomaly
W. Rabbel and E. Lüschen 219
Waveform inversion of deep seismic reflection data: the polarity of mantle reflections
C.E. Price, J.V. Morgan, M.R. Warner, P.J. Barton, K.A. Jones and R.P.Ll. Morgan 235
Seismic velocity, heterogeneity, and the composition of the lower crust
J. Brittan and M. Warner 249
General features of the uppermost mantle stratification from long-range seismic profiles
N.I. Pavlenkova 261
Faults and folds, fact and fiction
R. Meissner 279
Vertical seismic profile results from the Kola Superdeep Borehole, Russia
B.J. Carr, S.B. Smithson, N. Kareav, A. Ronin, V. Garipov, Y. Kristofferson, P. Digranes, D. Smythe and C. Gillen 295
Nature of seismic reflections and velocities from VSP-experiments and borehole measurements at the KTB deep drilling site in southeast Germany
E. Lüschen, K. Bram, W. Söllner and S. Sobolev 309
KTB — The structure of a Variscan terrane boundary: seismic investigation — drilling — models
G. Hirschmann 327
Stochastic analysis of sonic logs from the upper crystalline crust: methodology
K. Holliger, A.G. Green and C. Juhlin 341
Relative-amplitude preserving processing for crustal seismic reflection data: an example from western Canada
D.W.S. Eaton and J. Wu 357
Wave-equation datuming for improving deep crustal seismic images
S.P. Larkin and A. Levander 371
Pre-stack migration and true-amplitude processing of DEKORP near-normal incidence and wide-angle reflection measurements
M. Simon, H. Gebrande and M. Bopp 381

CONTENTS

Preface v
Seismic image of the Cantabrian Mountains in the western extension of the Pyrenees from integrated ESCIN reflection and refraction data
J.A. Pulgar, J. Gallart, G. Fernández-Viejo, A. Pérez-Estaún, J. Álvarez-Marrón and ESCIN Group 1
Crustal evolution of the Middle Urals based on seismic reflection and refraction data
C. Juhlin, J.H. Knapp, S. Kashubin and M. Bliznetsov 21
A traverse of the Ionian islands front with coincident normal incidence and wide-angle seismics
A. Hirn, M. Sachpazi, R. Siliqi, J. Mc Bride, F. Marnelis, L. Cernobori and the STREAMERS-PROFILES group 35
Gently north-dipping Median Tectonic Line (MTL) revealed by recent seismic reflection studies, southwest Japan
T. Ito, T. Ikawa, S. Yamakita and T. Maeda 51
LITHOPROBE reflection studies of Archean and Proterozoic crust in Canada
R.M. Clowes, A.J. Calvert, D.W. Eaton, Z. Hajnal, J. Hall and G.M. Ross 65
Seismic image of an early Proterozoic rift basin
B. Milkereit and J. Wu 89
Coincident vibroseis and dynamite surveys across the western flank of the Trans-Hudson Orogen
S. Bezdán and Z. Hajnal 101
Moho signature from wide-angle reflections: preliminary results of the 1993 Trans-Hudson Orogen refraction experiment
B. Németh, Z. Hajnal and S.B. Lucas 111
Results of seismic reflection profiling in the Turanian Platform
E.R. Sheikh-Zade 123
Deep seismic images and the tectonic framework of early rifting in the Otway Basin, Australian southern margin
D.M. Finlayson, D.W. Johnstone, A.J. Owen and K.D. Wake-Dyster 137
Seismic structure of the northern continental margin of Spain from ESCIN deep seismic profiles
J. Alvarez-Marrón, A. Pérez-Estaún, J.J. Dañobeitia, J.A. Pulgar, J.R. Martínez Catalán, A. Marcos, F. Bastida, P. Ayarza Arribas, J. Aller, A. Gallart, F. Gonzalez-Lodeiro, E. Banda, M.C. Comas and D. Córdoba 153
Crustal image of the Ionian basin and its Calabrian margins
L. Cernobori, A. Hirn, J.H. McBride, R. Nicolich, L. Petronio, M. Romanelli and STREAMERS/PROFILES Working Groups 175
Crustal-scale extension in the central Pannonian basin
Z. Hajnal, B. Reilkoff, K. Posgay, E. Hegedus, E. Takacs, I. Asudeh, St. Mueller, J. Ansorge and R. Delaco 191
Coincident normal-incidence and wide-angle reflections from the Moho: evidence for crustal seismic anisotropy
K.A. Jones, M.R. Warner, R.P.Ll. Morgan, J.V. Morgan, P.J. Barton and C.E. Price 205
Shear wave anisotropy of laminated lower crust at the Urach geothermal anomaly
W. Rabbel and E. Lüschen 219
Waveform inversion of deep seismic reflection data: the polarity of mantle reflections
C.E. Price, J.V. Morgan, M.R. Warner, P.J. Barton, K.A. Jones and R.P.Ll. Morgan 235
Seismic velocity, heterogeneity, and the composition of the lower crust
J. Brittan and M. Warner 249
General features of the uppermost mantle stratification from long-range seismic profiles
N.I. Pavlenkova 261
Faults and folds, fact and fiction
R. Meissner 279
Vertical seismic profile results from the Kola Superdeep Borehole, Russia
B.J. Carr, S.B. Smithson, N. Kareav, A. Ronin, V. Garipov, Y. Kristofferson, P. Digranes, D. Smythe and C. Gillen 295
Nature of seismic reflections and velocities from VSP-experiments and borehole measurements at the KTB deep drilling site in southeast Germany
E. Lüschen, K. Bram, W. Söllner and S. Sobolev 309
KTB — The structure of a Variscan terrane boundary: seismic investigation — drilling — models
G. Hirschmann 327
Stochastic analysis of sonic logs from the upper crystalline crust: methodology
K. Holliger, A.G. Green and C. Juhlin 341
Relative-amplitude preserving processing for crustal seismic reflection data: an example from western Canada
D.W.S. Eaton and J. Wu 357
Wave-equation datuming for improving deep crustal seismic images
S.P. Larkin and A. Levander 371
Pre-stack migration and true-amplitude processing of DEKORP near-normal incidence and wide-angle reflection measurements
M. Simon, H. Gebrande and M. Bopp 381